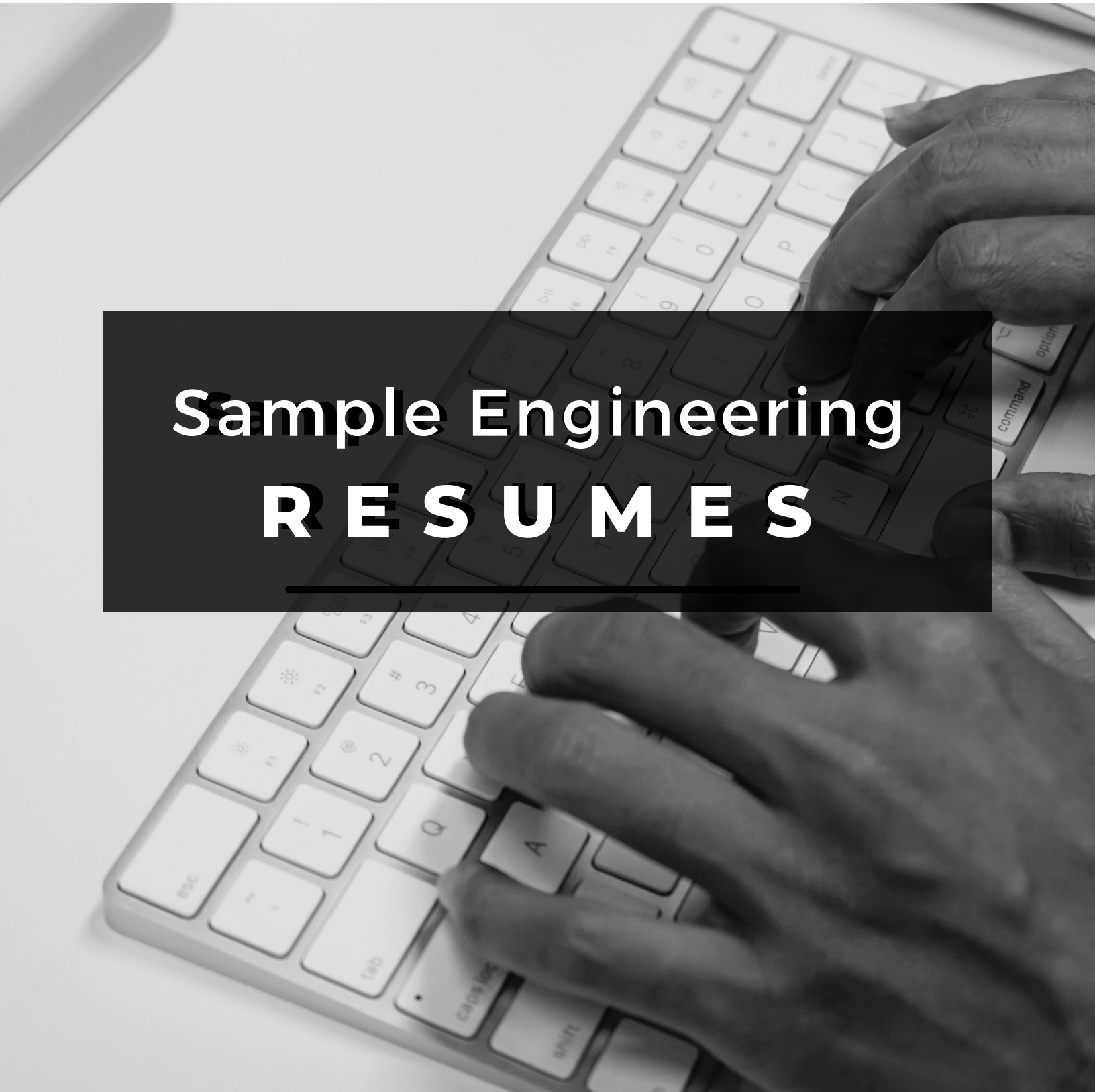


ENG CDO



Sample Engineering
RESUMES

ARPITA PATEL

Local: 700 Commonwealth Avenue, Boston, MA 02215 | 617-555-4321 | axpbu@bu.edu

Permanent: 123 Lyon Estates, Hill Valley, CA 99999

EDUCATION

Boston University College of Engineering
Bachelor of Science, Mechanical Engineering
GPA: 3.14/4.00

Boston, MA
May 2026

Hill Valley High School
GPA: 3.68/4.00 (Honor Roll 6 of 8 semesters)
National Merit Scholar
Jane M Smith Scholarship Winner

Hill Valley, CA

Relevant Coursework:

Engineering Design, Physics, Differential Equations, Chemistry, Linear Algebra

PROJECTS

“Power-Up Collector,” FIRST Robotics INFINITE RECHARGE, Team 1234

- Developed robot to identify and collect marked Power Cells, deliver to a predetermined location, activate generator switch.
- Collaborated in a team of 5 to design, fabricate, and assemble all components.
- Drafted components with AutoCAD.
- Awarded runner-up, regional finals.

“March Madness Picker App,” Personal Project

- Developed a least square model predicting winners of national college basketball tournament.
- Utilized Python libraries including NumPy and matplotlib.
- App correctly predicted winner 85% of games.

LEADERSHIP & AFFILIATIONS

Member, RAILS Robotics Group at BU

Volunteer, Relay for Kids fundraiser to benefit homeless children

Member, Hill Valley Robotics Club

Eagle Scout, Scouts BSA Troop 987

SKILLS

AutoCAD, Python, MATLAB, Microsoft Office, Drill Press, Soldering, Spanish

EXPERIENCE

Algebra Tutor

Hill Valley High School

- Provided “walk-in” tutoring services to students two days per week.

Fall 2020
Hill Valley, CA

Janice Ann White

jaweng@gmail.com • 111-555-3333 • linkedin.com/jaweng • Boston, MA

CDO Note: Resume of a First-Year Student or Sophomore applying for first internship

Education

Boston University College of Engineering

Bachelor of Science in Biomedical Engineering

Boston, MA

Expected May 2024

Skills

Computer: CAD, MATLAB, Microsoft Office Suite, Google Suite

Laboratory: Pipetting, drop casting

Language: French, English

Projects

Truss Design Project

Sep 2021 - Present

- Built and analyzed process of creating truss that would be able to hold 1.5kg
- Used material analysis and preliminary design; evaluated using MATLAB to design and build
- Collaborate with team of four to create and code truss design

MATLAB Final Project

Nov - Dec 2020

- Created MATLAB program to search a database, infuse data into compatible spreadsheet, and create readable output
- Coordinated with a group of three to put project together
- Presented in front of class of 30 students and professor in order to showcase purpose of project

Leadership

Member, Boston University Dance Team

Sep 2020 - Present

- Attend all practices and give feedback on choreography

Member, Boston University Society of Women Engineers

Sep 2020 - Present

- Assist in planning and staffing events for group of 350 members

Volunteer, Foster's Home for Imaginary Friends

Jun 2017 - Aug 2018

- Provided homework assistance to 5 fourth graders in a group home

President, Class of 2020, Degrassi High School

Sep 2019 - May 2018

- Raised \$2000 for the 2018 senior class gift; oversaw execution of tree planting
- Planned and facilitated biweekly class steering committee meetings
- Designed and executed Back to the Future 2018 prom theme, delegating tasks to peers and supervising progress

Experience

Central Perk

New York, NY

Shift Leader

Jun 2018 - Aug 2021

- Assigned, supported team members in designated areas including cash register, mobile order, order fulfillment
- Trained new employees on handling equipment and company standards
- Addressed and remedied customer feedback and complaints Barista
- Provided customer service to patrons and upheld company standards

Warren H. Towers

CDO Note: Resume of a Sophomore highlighting projects including extra-curricular projects

warrent@email.com • 617-555-4721 • Boston, MA • linkedin.com/warrent

EDUCATION

Boston University College of Engineering

Bachelor of Science in Mechanical Engineering

GPA: 3.56/4.00

Boston, MA

May 2025

Relevant Coursework:

- Engineering Design | Mechanical Design and Manufacturing | Mechanics | Physics
- Computational Programming (MATLAB) | Introduction to Data Science

PROJECTS

Rainwater Collection Tank, Boston University Engineers Without Borders

- Led technical team of 3 for a student group designing rainwater collection system for implementation in Naluja, Zambia
- Mentored a first-year student in techniques to interview villagers and determine project needs
- Used CAD and made roof calculations to determine number of tanks needed, and how gutters will be supported
- Presented proposal to group, design was selected out of 4 competing proposals

Transportable Incubator, Engineering Design class

- Engineered and built prototype to carry infants ranging from pre-mature to one-year of age
- Incorporated detachable Bilirubin light system, and temperature and heartrate indicators for ease of care
- Refined design to reduce weight by 30% and footprint by 22%

Additional Design Projects:

- Ice Cube Tray: Made final design in CAD and machined with CNC milling machine
- Catapult: Constructed using wood, implemented rope torsion, and surpassed high school launch record

SKILLS

Mechanical: Lathe, belt sander, band and miter saws, drill press,

Software: MATLAB, CAD: Creo and Siemens NX, Microsoft Office

Language: Spanish, French

EXPERIENCE

GE Aviation

Machining Intern

Hooksett, NH

Summer 2022

- Learned Siemens NX software to effectively create model of plant layout
- Kept track of tooling used for Electro-chemical machining
- Developed equipment to protect machining systems from excessive vibrations using shop materials and 3D printing
- Authored design proposal and presented recommendations to shop floor leadership group
- Awarded "Intern of the Month" July 2022

ACTIVITIES

BU Engineers Without Borders, member since September 2021

BU Intramural Soccer, member since September 2022

BU Kendo Team (martial art), member since September 2022

Margherita Y. Thompson

CDO Note: Resume of a Junior or Senior emphasizing work experience with projects, leadership

mythompson@bu.edu | 617-555-5555 | Boston, MA | linkedin.com/in/mythompson | **Portfolio:** github.com/mythomp

EDUCATION

Boston University College of Engineering

Bachelor of Science in Computer Engineering
GPA: 3.71/4.0 (Dean's List)

Boston, MA
Expected May 2023

RELEVANT COURSEWORK

Data Science Intro to Programming for Engineers Intro to Software Engineering
Intro to Machine Learning Applied Algorithms for Engineers Intro to Logic Design

SKILLS

Languages: Python, C, C++, C#, Java, MATLAB

Applications: Microsoft Excel, PowerPoint, Word, Visual Studio, Arduino

PROFESSIONAL EXPERIENCE

Initech, Inc.

Engineering Intern

Boston, MA
May – Aug 2021

- Developed backend of data masking software for large enterprises with Java
- Optimized controllers for database access by increasing load speed by 30% using Java and SQL

Marketplace.com

Process Assistant

Cambridge, MA
May – Sep 2020

- Monitored work flow progress to identify missing, unfilled, or mislabeled orders
- Responded to client complaints and helped to increase sales by 7%

Boston University Technology Services

Desktop Support Assistant

Boston, MA
Sep 2019 – May 2020

- Resolved computer software issues, remove malware, and troubleshoot problems for staff, faculty, students, and alumni across campus
- Answered client technology questions both in person and over the phone
- Provided imaging, inventory, and asset management services for university owned machines

SELECT PROJECTS

Autonomous Car Project

Jan – Apr 2021

- Designed and programmed a mini car with sensors to mimic attributes of a self-driving vehicle
- Collaborated in a team of 3 to program car using an Arduino
- Presented final product to a class of 20 students and professor

Study App Design Project

Oct – Dec 2020

- Generated a Java application to help students locate uncrowded study locations on campus
- Developed, distributed, and collected 200+ surveys to gather study space data for app
- Managed development of app documentation and presentation to showcase final product

City Crime App

Sep – Dec 2019

- Produced an app in MATLAB App Designer to plot and visualize locations of crime in Boston
- Coded instructions in app to plot latitude and longitude coordinates onto mobile map

LEADERSHIP

Vice President, Society of Women Engineers (SWE), Boston University

Apr 2021 – Present

Jasmine V. Ngyun

jvwin@hmail.com • 111-555-3333 • linkedin.com/jvwin • Boston, MA

Education

Boston University, College of Engineering

Boston, MA

B.S. in Biomedical Engineering, Concentration in Technology Innovation

Expected May 2022

GPA: 3.65/4.00

Relevant Coursework:

Molecular & Cell Biology

Systems Physiology

Thermodynamics & Statistical Mechanics

Signal & Controls Systems

Microfluidic design

Intro to Data Science

Experience

Researcher, Dexter's Lab Partnership for Global Takeover

Dec 2019 – Present

- Lead needs analysis at the United Nations to identify shortcoming in planet defense systems
- Design and develop a low-cost moon monitoring device for United Nations to mitigate disease outbreaks
- Project change models in light absorption with pH change as simple method to identify moon dust contamination
- Characterize model of pH change and gas production in moon dust contaminated water samples over time
- Present research findings at 2020 and 2021 BU Undergraduate Research Opportunities Program Symposium

R&D Engineering Intern, International Genetic Bio-Engineering, Inc.

May – Aug 2021

- Conducted image analysis study on implantable defibrillator leads to provide information about movement stress
- Analyzed over 10,000 data points on Minitab and wrote technical reports to document findings of project
- Performed laboratory bench testing on implantable defibrillator leads to determine fatigue strength

Laboratory Assistant, TARDIS Laboratory

Jan – Dec 2019

- Administered computer-based vision tests to patients with visual impairments caused by strokes
- Utilized MUSE meditation device in a research study through neuro-feedback vision tests and analyzing EEG data
- Supported 300 trial participants with registration assistance and provided answers to questions about the research

Projects

Dinosaur Tissue Foundry Design, Senior Design Project

Sep 2021 – Present

- Collaborate with team of 4 engineers to develop a disposable bioreactor component for an automated tissue foundry
- Evaluate and adjust component settings in response to fatigue data results

Low-Resource Setting Diagnostic Device

Jan – May 2021

- Designed and manufactured a spirometer to test for zombie-itis
- Consulted with 7 international medical professionals and product users for design influence
- Presented final spirometer prototype in front of 100 engineers and business professionals from Boston area

Skills

Laboratory: EOG, ECG, Optical Fiber Fabrication, Elastic Scattering Spectroscopy (EES), Data Analysis, Experimental Design, Use of Micro Bore Extruders, Fabrication of Lipid Microbubbles, Microscopes

Computer: MATLAB, LabVIEW, SolidWorks, GibbsCAM, Microsoft Office

Leadership

Boston University Board of Student Conduct, Member

Sep 2020 – Present

Boston University College of Engineering, Dean's Host

Jan 2020 – Present

Biomedical Engineering Society, Employer Engagement Coordinator

Sep 2019 – Present

Lil Sebastian Mentoring Program, Mentor

Jan 2018 – May 2020

Zamir Kantor

CDO Note: Resume of a Senior highlighting technical skills and leadership experience

617-555-6789 | zkantor@gmail.com | Boston, MA

Portfolio: www.hosting.com/zamirk | LinkedIn: www.linkedin.com/9fjj0

EDUCATION

Boston University, College of Engineering

B.S. in Mechanical Engineering, Concentration in Energy Technologies
Semester Abroad, **Technische Universität Dresden**, Dresden, Germany
GPA: 3.31 (Dean's List)

Boston, MA
May 2022
Spring 2021

EXPERIENCE

Energy Analysis Intern

Summer 2020, 2021

In Sync Engineering

Omaha, NE

- Planned process of maintaining mechanical systems for clients of mechanical, electrical, fire protection and telecommunications engineering consulting firm
- Completed energy consumption analysis using TRACE 700
- Conducted research for multiple energy projects to establish current data and trends necessary for finalizing project solutions
- Reviewed proposed structural drawings for mechanical, plumbing, and fire protection upgrades for Omaha Eppley Airfield; presented proposed improvements to Project Manager; design approved

Research Assistant

Spring 2020

BU Advanced Materials Process Control Laboratory

Boston, MA

- Studied air flow rates of BU physical plant to devise new tool to re-optimize HVAC control
- Awarded Undergraduate Research Opportunities Program grant

SELECTED PROJECTS

Senior Project: "High Temperature Speed Sensor Design," *Ametek, Inc.*

- Designed an experiment to analyze current design of a turbine speed sensor to determine temperature dependence of sensor; improve design to withstand extreme conditions
- Engineered a new generation of sensor by selecting materials functioning as needed at extreme temperatures of 800°C or higher
- Presented finished design to senior faculty at Mechanical Engineering Senior Project Conference

"Remote Controlled Car"

- Created Creo designs for car body of a remote-controlled vehicle that could be easily fabricated and manufactured in an assembly line, in team of 3
- Machined and assembled two RC cars to test design's functionality using CNC and Mill machine
- Planned processes and layout for continuous manufacturing

"Cello Tuner," *Personal Project*

- Designed and manufactured an automated cello tuner using SolidWorks, Arduino, and MakerBot
- Drafted detailed drawings, selected/ordered materials, machined components, constructed final project

Additional Projects: Automated Cymbal Hammer, Food Readiness Calculating Spatula, Truss Stress Analyzer Program, Solar Powered Remote Water Distiller, Deformable Mirror Test Chamber

SKILLS

Computer: CREO Parametric, Arduino, SolidWorks, MATLAB, COMSOL, TRACE 700, Microsoft Office

Manufacturing: CNC Mill, Drill Press, Lathe, MakerBot, Arc Welder, Chop Saw, GibbsCAMM

LEADERSHIP & ACTIVITIES

Member, Society of Women Engineers (SWE) at BU

Member, IEEE at BU

Engineering Ambassador, BU College of Engineering

Outreach Chair, Gamma Beta Alpha BU Chapter

CDO Note: VMock doesn't allow for a summary, but ok for LEAP students due to diverse backgrounds.

Zurina C. Aguiniga

zuni@bu.edu · 987.555.3210 · LinkedIn.com/zuni

CDO Note: Resume of a LEAP Masters Candidate highlighting unique skills and experiences

SUMMARY

- Masters level biomedical engineer with 10 years experience in consumer products program management
- Managed and analyzed large data sets to inform strategic business decisions
- Able to communicate effectively to management, users, developers, and cross-functional team members to coordinate large scale organizational initiatives

EDUCATION

Boston University College of Engineering

M.S. in Biomedical Engineering, GPA: 3.21/4.0

Boston, MA

Expected May 2022

Sweet Valley University College of Liberal Arts

B.A. *cum laude* in Sociology, GPA: 3.7/4.0

Sweet Valley, CA

May 2011

Relevant Coursework:

Signals and Signals	Biomedical and Clinical Needs Finding	Adv. Biomedical Design & Development
Product Development	Nonlinear System in Biomedical Engineering	Data Science

PROJECTS

ARC Reactor

September 2021 - Present

- Designed and prototyped a pneumatic, soft dextrous limb intended for use in minimally invasive surgery for surgical operations that require rotational motions and torque
- Created molds in SolidWorks to cast silicone soft actuators and outer chamber
- Performed motion, force, and material testing and analysis on the prototype
- Presented device at 2021 National Biomedical Engineering Conference and received Spotlight Award

Robotic Therapeutic Dog

January 2021 - May 2021

- Built system to quantify functional leg muscle motion to improve therapy for stroke patients
- Modeled in SolidWorks and built a mechanical support for transducer during measurement collection
- Developed MATLAB algorithm that quantifies measurements of muscle motion from ultrasound data
- Conducted tests of system on post stroke patients under IRB approval

EXPERIENCE

Wonka Industries

Sweet Valley, CA

Outreach Program Manager

July 2014 - August 2020

- Collected and analyzed over 500 data points of participant feedback to determine trends
- Collaborated with 5 person marketing team for large-scale international sweepstakes
- Input, tracked, and managed program participant data in Salesforce through reports, formulas, and forecasting
- Created annual reports summarizing program status and growth for internal and external stakeholders

LEADERSHIP

National Confectioners Association

Conference Co-Chair

June 2019 - June 2020

- Led and managed group of 90 volunteer leaders in all areas of event planning including logistics, budget management, and participant experience
- Compiled and reviewed user experience data from previous conference
- Created and implemented strategic plan to improve participant experience

SKILLS

Technical: Computer Aided Design, MATLAB, 3D Printing, fatigue testing, medical standards

Leadership: Strategic planning, program evaluation, delegation, presenting

Business: Salesforce, Microsoft Office Suite, Google Office Suite, Concur

Meredith Greene

CDO Note: Resume of a Master's candidate showing mix of projects and work experience

mgreene@gmail.com | 123-555-7890 | linkedin.com/in/mgreene | Boston, MA

EDUCATION

Master of Engineering in Biomedical Engineering Expected May 2023
Boston University College of Engineering, Boston, MA

Bachelor of Science in Biomedical Engineering May 2021
South Harmon Institute of Technology, Harmon, OH | GPA: 3.88

Coursework:

Data Science	Biomolecular Engineering
Chemical and Molecular Bioengineering Techniques	Bioreactor Engineering
Structural and Metabolic Engineering	Biochemistry, Fluids, Mass, and Heat Transfer
Next Generation Sequencing	Nanomedicine

RESEARCH PROJECTS

Machine Learning Tool Improvement Project Sep 2021 – present

- Utilize supervised and unsupervised machine learning tools to improve accuracy of predicting interactions
- Sort, filter and interpret large sets of data using python to create visual representations and reveal insights into improving field of nanotechnology drug delivery
- Apply principles of biophysics and statistical mechanics to study and interpret antibody-antigen interfaces

Photogenic Crystal Project May – Aug 2020

- Wrote MATLAB code to analyze image and video animations to investigate relationship between mechanical properties and kinetics of polymers and crystals
- Collected visual data of photo-responsive single crystals and wrote MATLAB codes to track motion and examine kinetics

EXPERIENCE

R&D Product Development Intern Sep 2020 – May 2021

Dr. Spaceman Surgical, Inc., Harmon, OH

- Performed test method validations for tissue sterilization cycle reduction to promote lean manufacturing, and for cellular assays to support new product development
- Reviewed regulatory controls and 510(k) clearances to perform gap assessments on current bone graft substitutes for FDA remediation
- Executed thermal stability and mechanical testing research studies for 510(k) expanded indication submission

Design Intern May – Sep 2019

Seattle Grace Hospital, Seattle, WA

- Created SolidWorks models to prototype and design lancet structures; printed with 3D extrusion printer
- Studied filament materials including ABS/PLA properties to choose material for building structures
- Prepared molds and evaluated mechanical properties such as sharpness of fabricated lancet
- Fabricated and tested a low-cost, single-use sugar testing lancet for diabetics

SKILLS

Programming: Certified SolidWorks Associate, MATLAB, ImageJ, CAD

Laboratory: Mechanical testing, differential scanning calorimetry, moisture analysis, cell culture, cellular assays, aseptic techniques, Analyzer testing and Exponent software, microscopy

LEADERSHIP & COMMUNITY SERVICE

Public Relations Chair, Boston University Student Association of Graduate Engineers Sep 2021 – present

Fundraiser/Participant, ALS Association Walk for the Cure Jul 2016 – present

President, South Harmon Institute of Technology Biomedical Engineering Society May 2020 – May 2021

Disc Jockey, KRFF, South Harmon Institute of Technology Student Radio Station Jan 2018 – Dec 2020

Zaaid al-Abadi

zabadi@bu.edu | 617-555-5555 | Boston, MA | github.com/zaa

EDUCATION

Boston University College of Engineering Boston, MA
M.S. in Electrical & Computer Engineering Expected May 2022

- GPA: 3.66/4.00

Drexel University College of Engineering Philadelphia, PA
B.S. in Computer Engineering Jun 2020

- GPA: 3.73/4.00

COURSEWORK

Applied Algorithms	Probability, Statistics, & Data Science	Complex Variables
Logic Design	Software Product Design	Software Systems Design

SKILLS

Programming Languages: C/C++, Python, Java, MATLAB
Tools & Frameworks: Linux, Git, Android Studio
Spoken Languages: Fluent in Arabic and English

WORK EXPERIENCE

Manufacturing Innovators | Woburn, MA Sep 2021 – present
Research Assistant

- Design, manufacture, and test microfluidic chips coupled with compatible methods in order to enhance antibiotic susceptibility testing
- Convert laboratory assays and logical flow chart to object-oriented C++ programs

Transportation, Inc. | Philadelphia, PA Jun – Aug 2020
IT Operations Intern

- Responded to queries and provided onsite and remote technical support to resolve endpoint issues
- Collaborated with helpdesk teams in the U.S. and Europe to exchange best practices
- Installed and supported systems, resulting in enhanced work productivity for 85% of employees

Research Laboratory | Philadelphia, PA Aug 2018 – Jan 2019
Student Trainee Computer Engineer

- Developed software for custom embedded systems applications in a team of 3 software engineers
- Optimized memory testing algorithms and clearing methods to improve system performance
- Presented during weekly team meetings and implemented collected feedback ahead of deadlines
- Trained 2 new students trainees during their first 2 weeks

TEAMWORK PROJECTS

Video Game FPGA Project Jan – May 2020

- Collaborated in a team of 4 to create a video game using a Spartan 6 FPGA and other peripherals
- Implemented collision detection logic between player and game elements
- Presented final project to class and professor using PowerPoint

ACTIVITIES

Member, Institute of Electrical and Electronics Engineers (IEEE) Oct 2020 – present
Treasurer, Student Association of Graduate Students (SAGE) Sep 2020 – present
Member, ECE Grad Student Council Sep 2020 – May 2021

CDO Note: Resume of a Master's candidate showing mix of projects and work experience

LESLIE M. REYNOLDS

lmrey@bu.edu | Boston, MA | 617-555-1234 | Portfolio: lmrey.sitehost.com

EDUCATION

Boston University College of Engineering

M.S. Mechanical Engineering

GPA: 3.19/4.00

Boston, MA

January 2022

Boston University College of Engineering

B.S. Mechanical Engineering with Manufacturing Concentration

GPA: 3.59/4.00

Dean's List (6 semesters)

Boston, MA

May 2020

EXPERIENCE

Black + Decker

R&D Intern

Allentown, PA

Summer 2020

- Recorded and presented test data for analysis during validation phase of a new project introduction, in support of the R&D Department.
- Developed and performed troubleshooting steps and root cause analysis to determine failure points.
- Used SolidWorks to prepare engineering drawings for production team.
- Identified deficiencies in the production process and proposed improvements to senior management on own initiative; recommendations implemented, resulting in 40% decrease in component failure rate.
- Trained 2 undergraduate engineering interns on troubleshooting procedures.

PROJECTS

Capstone: Straight Hand Seamer, ABC Tool Company

- Designed a modified straight hand seamer used in bending, seaming, and flattening sheet metal for a manufacturer of machine tools for sheet metal industry, as part of a team of three.
- Determined scope and needs of project through participation in cross-functional team meetings.
- Created two proposed designs in SolidWorks, intended to improve handle design to reduce user fatigue.
- Presented proposals to Engineering department, highlighting positives and negatives of each proposal.
- Built a prototype of selected design using CNC Milling Machine and hand tools.
- Accepted design is in production phase.

Visual Hearing Aid

- Led a team of 3 in engineering and building a device that enables users to control a motor based on where user is looking to target wanted sounds.
- Developed a LabVIEW program to enable an electrooculogram to control servo motor.

Additional Projects:

- Lightweight Airplane Wing Foil
- 3D Model of Cement Factory
- Soil Hydration Monitoring Device
- Truss Bridge Analysis

SKILLS

Computer: Creo, SolidWorks, AutoCAD, LabVIEW, MATLAB, Microsoft Office

Manufacturing: Soldering, CNC Mill, Lathe, Drill Press, Laser Cutter

Language: Spanish

LEADERSHIP & ACTIVITIES

Member, Pi Tau Sigma Mechanical Engineering Honor Society

Member, American Society of Mechanical Engineers (ASME) at Boston University

KANO HARUKO

CDO Note: Resume of a Master's candidate highlighting work experience and research

617-555-9876 | kanhar@edu | Boston, MA | **Engineering Portfolio:** www.website.com/haruko

EDUCATION

Boston University College of Engineering

M.S. Materials Science & Engineering

Boston, MA

Jan 2022

University of Texas at Austin College of Natural Sciences

B.S. *cum laude*, Chemistry and Physics

Austin, TX

May 2020

Relevant Coursework: Advanced Materials Characterization, Kinetic Processes in Materials, Data Science, Transport Phenomena in Materials Processing, Computer Simulation, Statistical and Thermal Physics, Oscillations, Waves & Optics, Organic Chemistry, Information Theory, Inference & Networking, Statistics, Solid State Physics

EXPERIENCE

Materials Research Science Intern | BrainCo, Inc.

Boston, MA | May – Aug 2021

- Conducted research of materials development for dry electrode used in long term EEG wearable devices.
- Tested mechanical, electrical properties of electrode to improve signal quality and skin-electrode contact.
- Improved electrode performance by 23% by redesigning fabrication procedure and incorporating water-remaining agent for long-Term EEG signal measurement.
- Developed prototype of electrode module for EEG wearable devices for EDHD patients in cooperation with hardware engineers, structural designers and product manager.
- Collaborated with manufacturer to facilitate new dry electrode fabrication method; determined production chain and quality control standard in conjunction with production manager.

Lab Manager Assistant | BU Optoelectronic Processing Facility

Boston, MA | Oct 2020 – Dec 2021

- Documented manual and calibrate Magnetron sputtering machine in communication with manufacturer (Angstrom, Inc.) and lab manager.
- Performed maintenance of some facility DRIE and Electron beam evaporation.
- Supervised and trained 2 REU/RET students in nanofabrication methods (Electron beam evaporation and Photolithography).

SELECTED PROJECTS and RESEARCH

Powertrain Engineer: "Formula SAE Racer," BU Formula Race Team

- Engineered powertrain for 700 lb, 30 kW, 3.3 kWh electric racing car, competing with teams from other schools.
- Designed system components CAD models with SolidWorks, performed FEA simulations in SolidWorks and ANSYS.
- 3D printed prototypes, manufactured car parts with machinery including CNC Mill, Lathe. Welded full assembly.

"In Silico Evolution of Biochemical Oscillators with Synchronization"

- Created simulation in Mathematica demonstrating essentiality of proteins and synchronization of protein network with external driving function via neutral evolution.
- Wrote final report and presented project poster at college fair.

Additional Projects: Carbon Fiber Filament Winder, Quantum Dot Synthesis, Plasmonic Gold Nanoparticle Synthesis

SKILLS

Computer: SolidWorks, AutoCAD, GibbsCAM, MATLAB, R, Python, ANSYS Workbench, COMSOL Multiphysics, LaTeX

Lab: Magnetron Sputtering, Electrospinning, Electron beam deposition, Photolithography, Electron beam writing, Confocal Raman Microscope, UV-VIS spectroscopy, DRIE, RIE, SEM, TEM, AFM, Ellipsometry, HPLC, ICP-MS, FIB

Manufacturing: CNC Mill, Lathe, Drill Press, Welding, Soldering

LEADERSHIP, HONORS and AFFILIATIONS

Member, Materials Research Society (MRS) at BU, Graduate Women in Science and Engineering (GWISE) at BU

Special Event Coordinator, alpha Kappa Delta Phi (Eta Chapter), UT Austin

Dean's Fellowship Recipient, Boston University

Personal interests include hiking, cooking, and soccer

Howard W. Thurman

hwth@bu.edu | 617-555-5555 | Boston, MA
linkedin.com/in/sszawojski | **Portfolio:** github.com/hthurm

EDUCATION

Boston University College of Engineering

M.S. in Systems Engineering
B.S. in Computer Engineering

Boston, MA
Expected May 2022
Jun 2020

TECHNICAL SKILLS

C/C++, Java, JavaScript, Python, MATLAB, SQL, Spark, Keras, Tensorflow

WORK EXPERIENCE

Boston University

Systems Engineer – Software Developer

Boston, MA
Sep 2021 – Present

- Build a module to expedite work order processing based on users' preferences; resulted in 25% work order capacity increase.
- Contribute to the UI design by suggesting new technologies in staff of 5 members.

Data Systems, Inc.

Data Science Intern

Washington, DC
May – Aug 2021

- Developed email marketing system, improving marketing performance by 60%.
- Implemented Deep RL training and evaluation using Spark and Tensorflow.
- Built a simulation system of email marketing with multiple classification models.

RESEARCH EXPERIENCE

Sustainable Energy Research

May 2021 – Jan 2022

- Evaluated city demographics, electric vehicle policies, and charging infrastructure deployment in 3 U.S. cities to gather best practices for sustainable transit use.
- Interviewed 5 industrial experts and wrote a 50-page report outlining research findings and final recommendations.
- Presented research to company staff and at the Boston University Research Fair.

Robotic Arm Research

Sep 2019 – Jun 2020

- Designed a system to use Augmented Reality (A/R) to easily control an assistive robotic arm for users with limited mobility.
- Integrated Microsoft HoloLens A/R headset with Kinova Jaco robotic arm.

PUBLICATIONS

T. Randall, B. Stephens, "Sustainable Transit in 3 U.S. Cities," Sustainability Journal, January 2022.

HONORS & AWARDS

Boston University Division of Systems Engineering Award, 2021
Grace Hopper Celebration Student Scholarship, 2019

LEADERSHIP & ACTIVITIES

Board Member, Student Association of Graduate Students (SAGE)
Vice President, National Society of Black Engineers (NSBE) at BU

May 2020 – Present
Sep 2017 – Jun 2020